Amendments To The Claims:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously present), or (not entered).

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for combusting gaseous fuel with a gaseous oxidant in a combustor comprising:

providing gaseous oxidant and a combustible gaseous fuel;

mixing the gaseous oxidant and gaseous fuel, where the gaseous oxidant has a velocity relative to the fuel which is sufficient to cause turbulent mixing with the fuel;

introducing a stable, field generated source of charged particles at the corona initiation source at a sharp contact point of an end of a fuel feed tube to increase a charged particle density; and

combusting the gaseous oxidant and fuel in the region of a combustion flame and an electric field, where the electric field produces an electrical stress resulting in local breakdown of the mixture of gaseous oxidant and fuel, and a corona discharge that in turn generates intimate turbulent mixing of the gaseous oxidant and fuel.

2. (original) The method of Claim 1, wherein the oxidant and fuel are mixed near the combustion flame.

3. (original) The method of Claim 1, wherein the oxidant and fuel are first premixed and then passed to the combustion flame.

4. (original) The method of Claim 2, wherein the gaseous oxidant is air, pressurized from 1.5 atmospheres to 40 atmospheres and the combustible gaseous fuel is a hydrocarbon fuel.

5. (original) The method of Claim 2, wherein the electric field also influences turbulent mixing of the oxidant and fuel, improving combustion.

6. (original) The method of Claim 3, wherein the gaseous oxidant is air, pressurized from 1.5 atmospheres to 40 atmospheres and the combustible gaseous fuel is a hydrocarbon fuel.

7. (original) The method of Claim 3, wherein the electric field also influences turbulent mixing of the oxidant and fuel, improving combustion.

8. (currently amended) A method for combusting a gaseous fuel with a gaseous oxidant, prior to passing the hot combustion products to a gas turbine comprising:

~~(A)~~ feeding combustible gaseous fuel to an enclosed combustor through at least one fuel feed tube and providing at least one combustion flame within the enclosed combustor at the end of the fuel feed tube, the flame having a top flame tip and a bottom root end at the end of the feed tube;

~~(B)~~ feeding gaseous oxidant to contact gaseous fuel near the combustion flame;

~~(C)~~ providing an electric field in the region of the combustion flame;

introducing a stable, field generated source of charged particles at the corona initiation source at a sharp contact point of an end of a fuel feed tube to increase a charged particle density;

~~(D)~~ adjusting the velocity of the gaseous oxidant to provide turbulent flow and turbulent mixing with the gaseous fuel near the root end of the flame, to provide combustion and ionization of the gases at least at their contact interface;

~~(E)~~ adjusting the electric field to provide a corona discharge to enhance ionization and turbulent mixing of the gases which in turn improves combustion; and

~~(F)~~ passing the hot combusted mixed gases to a gas turbine.

9. (original) The method of Claim 8, wherein the gaseous oxidant is air, pressurized from 1.5 atmospheres to 40 atmospheres and the combustible gaseous fuel is a hydrocarbon fuel.

10. (original) The method of Claim 8, wherein the electric field also influences turbulent mixing of the oxidant and fuel, improving combustion.

11. (original) The method of Claim 8, wherein the end of the fuel feed tube acts as a burner for the combustion flame.

12. (original) The method of Claim 8, wherein the volume ratio of gaseous fuel:gaseous oxidant is from about 1:5 to 1:100.

13. (original) The method of Claim 8, wherein the volume ratio of gaseous fuel:gaseous oxidant is from about 1:5 to about 1:75.

14. (original) The method of Claim 8, wherein the gaseous oxidant at entry into the combustor has a velocity of from about 50 meters/sec. to about 2000 meters/sec.

15. (original) The method of Claim 8, wherein the gaseous oxidant at entry into the combustor has a velocity of from about 60 meters/sec. to about 500 meters/sec.

16. (original) The method of Claim 8, wherein the electric field produces ionization concentrated at the boundary between the fuel and the oxidant.

17. (currently amended) A gas turbine system comprising a combustor, a gas turbine, an air compressor, and an electric generator; where the combustor combusts gaseous oxidant and gaseous fuel and feeds the hot gaseous combustion products to the gas turbine; where the combustor comprises:

~~(A)~~ a combustion flame within the combustor;

~~(B)~~ at least one entry for gaseous oxidant feed and gaseous fuel feed; and

~~(C)~~ an electric field which is generated at or through the combustion flame, where the electric field is effective to cause ionization resulting in a corona discharge, which increases turbulent flow mixing of the gaseous fuel and gaseous oxidant before they undergo a combustion reaction, wherein

a voltage is applied at, or near a sharp contact point of an end of a fuel feed tube producing an increased charged particle density.

18. (original) The gas turbine system of Claim 17, wherein the electric field also improves combustion in the combustor.

19. (original) The gas turbine system of Claim 17, wherein the oxidant and fuel are mixed near the combustion flame.

20. (original) The gas turbine system of Claim 17, wherein the oxidant and fuel are first premixed and then passed to the combustion flame.